

THERMO-MECHANICAL MODIFICATION OF NONWOVEN WEBS

ABSTRACT OF DISCLOSURE

Heat bonded thermoplastic and partially thermoplastic nonwoven webs which have been thermomechanically treated while under low strain rate tension show significant improvements to their conformability and softness. More importantly the low strain rate thermomechanical treatment imparts a high degree of commercially valuable elasticity. The resultant webs find use in all nonwoven applications where softness, conformability and elasticity are useful. The resultant webs develop elasticity in only one direction but the two embodiments provide the ability to create elasticity in the machine or cross machine direction of a roll of precursor material. In addition virtually any precursor web containing at least 70% thermally bonded thermoplastic fibers can be used.